

CLAIMS

WHAT IS CLAIMED IS:

1. A tire having a plurality of radially outer rubber components, the components defining a radially outer surface (S1) of the tire and being exposed to fluids having a relative displacement with respect to the rotating tire, the tire comprising at least one radially outer component having projections, the projections being defined by first sides (2) and second sides (2') of unequal length, the first sides (2) having the greater length, delimiting therebetween an angle α ranging from 5° to 60° and forming at their intersection an apex (P), which protrudes by a height (h) from the radially outer surface (S1) from which said first and second sides originate, the height (h) ranging from 0.2 to 100 micrometers and in more than 75% of the projections, any plane tangent to the first side (2) of the projection cutting the radially outer surface (S1) at an acute angle.
2. The tire according to claim 1, wherein said acute angle is between 15° and 55° .
3. The tire according to claim 1, wherein said projections are delimited in the region of apexes (P) by a curved line.
4. The tire according to claim 3, wherein said plane cutting the radially outer surface at an acute angle is tangent to the first side (2) of the projection at a height not exceeding 75% of the total height of the projection.
5. The tire according to claim 1, wherein at least 2 neighboring projections are oriented laterally such that, their longitudinal central axes projected on the radially outer surface (S1) define with each other an angle β ranging from -15° to $+15^\circ$.
6. The tire according to claim 1, wherein said projections are placed on the radially outer component at a distance (d) ranging from 0 to 100 micrometers from each other.

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7. The tire according to claim 1, wherein said sides (2) and (2') are slightly curved.
8. The tire according to claim 1, wherein said angle α varies within the same rubber component.
9. The tire according to claim 1, wherein said height (h) varies within the same rubber component.
10. The tire according to claim 1, wherein said at least one radially outer rubber component is a tread.
11. The tire according to claim 10, wherein said projections are provided on the bottom of at least one groove provided in the tread.
12. The tire according to claim 10, wherein said projections are provided on at least one sidewall of at least one groove of the tread.
13. The tire according to claim 12, wherein said at least one groove is a circumferentially extending groove.
14. The tire according to claim 1, wherein said at least one or at least a further radially outer rubber component is the sidewall of the tire.
15. The tire according to claim 1, wherein said at least one radially outer rubber component is the lettering of the tire.
16. A mold for manufacturing a rubber tire, the mold comprising surfaces to form a tire having at least one radially outer component having projections, the projections being defined by first sides (2) and second sides (2') of unequal length, the first sides (2) having the greater length, delimiting therebetween an angle α ranging from 5° to 60° and forming at their intersection an apex (P), which protrudes by a height (h)

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from the radially outer surface (S1) from which said first and second sides originate, the height (h) ranges from 1 to 100 micrometers; and in more than 75% of the projections, any plane tangent to the first side (2) of the projection cuts the radially outer surface (S1) at an acute angle.

17. Process of making a rubber tire comprising the steps of:
- a) providing a tape with projections protruding from the surface of the tape, the projections being defined by first sides (2) and second sides (2') of unequal length, the first sides (2) having the greater length, delimiting therebetween an angle α ranging from 5° to 60° and forming at their intersection an apex (P), which protrudes by a height (h) from the radially outer surface (S1) from which said first and second sides originate, whereby the height (h) ranges from 0.2 to 100 micrometers; and in more than 75% of the projections, any plane tangent to the first side (2) of the projection cuts the radially outer surface of the tape at an acute angle;
 - b) adhering the tape to a vulcanized radially outer rubber component of a rubber tire.

18. Process of making a rubber tire comprising the step of vulcanizing the tire in a mold as defined in claims 17.

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